Amendments to the Claims

This Listing of Claims will replace all prior versions, as Listings, of claims in this application.

Listing of Claims:

1. (currently amended) An isolated polynucleotide encoding a variant cytochrome P450 3A4 (CYP3A4) monooxygenase polypeptide or fragment thereof wherein the polynucleotide is selected from the group consisting of:
   (a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO: 90;
   (b) a polynucleotide encoding a polypeptide having the amino acid sequence SEQ ID NO: 155;
   (c) a polynucleotide encoding an CYP3A4 polypeptide, wherein said polynucleotide is having at a position corresponding to position 21867 of the CYP3A4 gene (Accession No: AF280107, whereby the nucleotide A of the first ATG encoding the CYP3A4 protein has been taken as position 1) a T,
   (d) a polynucleotide encoding an CYP3A4 polypeptide, wherein said polypeptide comprises an amino acid substitution at position 363 of the CYP3A4 polypeptide (Accession No: AF280107); and
   (e) a polynucleotide encoding an CYP3A4 polypeptide, wherein said polypeptide comprises an amino acid substitution of T to M at position 363 of the CYP3A4 polypeptide (Accession No: AF280107)~~.~~,

   wherein the polypeptide encoded by the polynucleotide has an impaired expression and impaired enzymatic activity compared to the corresponding wild type CYP3A4 polypeptide.

2. (cancelled).

3. (currently amended) The polynucleotide of claim 1, wherein the nucleotide ~~deletion, addition and/or~~ substitution results in altered expression of the variant CYP3A4 gene compared to the corresponding wild type gene.

4. (previously presented) A vector comprising the polynucleotide of claim 1 or 3.

5. (previously presented) The vector of claim 4, wherein the polynucleotide is operatively linked to expression control sequences allowing expression in prokaryotic or eukaryotic cells.

6. (previously presented) An isolated host cell genetically engineered with the polynucleotide of claim 1 or 3 or the vector of claim 4 or 5.

7. (currently amended) A method for producing a molecular variant CYP3A4 ~~protein~~ polypeptide or fragment thereof comprising
   (a) culturing the host cell of claim 6; and
   (b) recovering said ~~protein~~ polypeptide or fragment from the culture.

8. (previously presented) A method for producing cells capable of expressing a molecular variant CYP3A4 gene comprising genetically engineering cells with the polynucleotide of claim 1 or 3 or the vector of claim 4 or 5.

9-11. (cancelled).

12. (currently amended) An isolated nucleic acid molecule fully complementary to a polynucleotide of claim 1 or 3.

13. (previously presented) A vector comprising the nucleic acid molecule of claim 12.

14-36. (cancelled).

37. (currently amended) A primer or probe consisting of an oligonucleotide of about 15 to 50 nucleotides in length and comprising a fragment of the polynucleotide of claim 1 or a fully complementary sequence thereof wherein said fragment comprises ~~the nucleotide sequence of~~ SEQ ID NO:90 ~~or a complementary sequence~~.

38. (cancelled).

39. (previously presented) A composition comprising the polynucleotide of claim 1 or 3.

40. (previously presented) The composition of claim 39 which is a diagnostic or a pharmaceutical composition.